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ABSTRACT

A study in college-level English-as-a-Second-Language (ESL) instruction investigated (1) whether or not there is any relationship between the strategic use of explicit grammar knowledge, including metalinguistic concepts, in an attempt to recognize error, and the actual correction of error and success in academic ESL; (2) whether or not certain error types respond better to this treatment than others; and (3) how efficient this explicit knowledge is in terms not only of correction but also of time, an important consideration for students taking examinations. Subjects were 12 native Spanish-speaking ESL students in an English composition course. Each was asked to find a specific number of errors in passages and correct them, using a think-aloud protocol; all errors were genuine ones made by Spanish-speaking students. Results indicate that explicit knowledge was directly related to recognition and correction of error, and to success in required English courses. Explicit knowledge was most effective in treating morphological error. Although use of the explicit knowledge appeared relatively automatic, more successful students spent more time on explicated corrections than did less successful students, suggesting analysis is a crucial element of successful use of such knowledge. Theoretical and instructional implications are discussed. Contains 70 references. (MSE)

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STRATEGIC USE OF PEDAGOGIC GRAMMAR RULES IN MICRO-LEVEL EDITING

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1. Introduction

As increasing numbers of students are preparing for and taking the CUNY Writing Assessment Test in high school, NYC public high school teachers face a challenge that CUNY ESL teachers have faced for some time, namely how to help our students pass standardized essay examinations. Studies have indicated that students' scores on such exams are determined more at the micro-level than at the macro-level, more by form than by content (Perkins, 1980; Rafoth & Rubin, 1984; Sweedler-Brown, 1993), and that errors generated by ESL students, such as choosing the wrong verb tense or not using the anticipatory "it", common among our Spanish-speaking students, are judged more severely than the types of errors native-speakers of English make (Vann, Meyer & Lorenz, 1984).

Meanwhile, there has not been agreement on whether students learn better through explicit instruction and feedback, presumably related (Faerch, 1986), than they do incidentally or implicitly. For hundred of years, language teaching meant translation and grammatical explication. Although the Audio-Lingual Method and Cognitive Code approaches made a radical break with this tradition, they still advocated treatment of error, through negative feedback and error analysis respectively. More recently, however, communicative approaches have eschewed isolation of form or forms, favoring incidental teaching in a natural context. Krashen's Input Hypothesis postulates that the only way to improve language proficiency is through language exposure, in the form of "comprehensible input." According to Krashen, information-processing, skill-building, consciously learning

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individual rules, increased output and focused correction do not result in greater proficiency (1982; 1994). Krashen's Monitor Model (1977a), on which this hypothesis was based, established a difference between learning and acquisition and associated the former with the conscious and with rules, with the intentional and the explicit, and the latter with the unconscious and "feel," with the incidental and the implicit.[1] Krashen maintained explicit linguistic knowledge is useful only as a monitor and that for successful monitor use, there is a "severe" time condition (1994).

Truscott (1996) summarizes research which he contends proves that grammar correction has no place in L2 writing classes. Like Krashen (1994), he makes heavy reference to research in L1 writing classes and ignores L2 classroom research, such as Pica (1985), White (1991) and Carroll and Swain (1993), which which might undermine his claim.

In the past few years, there have been published more articles supporting a focus on form (Doughty & Williams, 1998), particularly in writing (Ferris, 1997). However, research on explicit instruction and error correction in the L2 writing classroom has been inconclusive. Learner variables, such as age, proficiency level, educational background, cultural expectations, and level of ambient exposure to English, may compromise the effectiveness of any one method (Celce-Murcia, 1991; Reid, 1998a, 1998b), and have not always been taken into account; nor have other variables such as the details of the treatment and the context in which it occurs often considered. Teacher comments are often ambiguous and inadequate (Hayes & Daiker, 1984; Wall & Hull, 1989) and the larger classroom context does not always prepare the student for or provide opportunities for explanation of feedback (Prior, 1991, 1995).

Experimental studies have tended to support explicit instruction more clearly. When two groups of 27 Dutch college students were exposed over three test sessions to implicit and explicit instructional treatment of an artificial language, those who had

received explicit instruction performed better on the three target structures: "plural -s", inflection in the imperative mode, and the positioning of forms for negation and of the object (DeGraaff, 1997). When 104 Japanese, Chinese and Korean students of English as a second language in adult language learning programs in Hawaii were exposed over two test sessions to implicit, explicit and incidental learning conditions, explicit instruction again proved to be significantly more effective with both target structures: subject-verb inversion where adverbs of location are fronted and formation of pseudo-clefts of location. These students searched for rules even in the implicit and incidental learning conditions, where they were told respectively to memorize and to focus on meaning (Robinson, 1997). However, like the classroom research previously cited, where even "longitudinal studies" did not follow students past the semester, this research focuses on short-term rather than long-term effects of explicit instruction.

Some other experimental studies have sought to establish the relationship between use of explicit knowledge acquired at a previous indeterminate time and subsequent recognition and correction of error. Based on his study of the "grammaticality judgment" of the indefinite article in English by 29 monolingual children, 11 bilingual children and 15 adult ESL students, Seliger (1979) concluded that there is no relationship between recognition of error and knowledge of "conscious rules" (p. 359). In a study of the grammaticality judgments of nine errors in syntax and morphology by 317 English-speaking teenagers and adults learning French, Bialystok (1979) also found no relationship between the use of explicit rules and recognition of error but postulated a relationship between the ability to articulate rules and ability to correct error. This relationship was later confirmed by Green and Hecht (1992), who asked 300 German-speaking teenagers and adults learning English to actually correct twelve sentences, each with a different type syntactic or morphological error. They found that over half the time (57%) learners were not able to offer correct rules. However, they also found that when students produced a

"correct" rule, there was a 97% correlation with correction. Even "incorrect" rules resulted in 70% error correction whereas no rule at all resulted in a correction rate of 55%, considerably below the average correction rate of 78%.

Although one of Krashen's most persuasive theses is that "the system is to complex to be consciously learned", most of his argument is based on research on English spelling and vocabulary, probably the least systematic elements of the language (1994, p. 54). Ellis (1990) stresses that linguistic rules vary in their complexity and that although some form-function relationships are opaque and processing operations complex, others are relatively transparent and simple (p. 167). Hulstijn (1995) observes that all rules can be described in terms of scope, reliability and frequency. Hulstijn and deGraaff (1994) claim that rules can be judged in by their complexity, or the number of criteria to be applied, and the facility of item memorization, or the degree to which a form is linked to the environment.[2] For example, the rule for third person "s" is "easy" and the rule for article usage is "hard"(Krashen, 1982; Tarone, 1985).

Bialystok (1978; 1988) agrees with Krashen that implicit knowledge is most directly connected to language acquisition but maintains that explicit knowledge used *strategically* through practice, inferencing and monitoring can act as a catalyst..[3] The defining characteristic of explicit knowledge is that it is accessible; it has the potential to be articulated. This study seeks to determine:

- whether or not there is any relationship between the strategic use of explicit knowledge, including metalinguistic concepts, in an attempt to recognize error and the actual correction of error and success in academic ESL;
- whether or not certain types of errors respond better to this treatment than others; and
- how efficient this explicit knowledge is not only in terms of correction but also in terms of time, another important consideration for students taking essay examinations.

Setting: Data for this study were collected at Lehman College from Spanish-speaking students who had been initially placed in the Bilingual and ESL Programs. Through the Bilingual Program at Lehman, Spanish-speaking students have the choice of registering for credit-bearing content courses taught in Spanish or taught in English, while they prepared to pass the CUNY Basic Skills Assessment Tests in Math, Reading, and Writing (MAT, RAT, WAT), all in English. Some prepare for the Math Assessment Test in Spanish, but the English as a Second Language Program at Lehman prepares them, exclusively in English, for the RAT and WAT. Until the Summer of 1996, a passing score on the WAT was a requirement for "graduation" from the program, and a passing score on the WAT, as of this writing, is still a requirement for continued matriculation at the college past 60 credits. Another requirement for continued matriculation is demonstrated progress in English, and students can repeat no single ESL course more than three times.

The English Composition Program is responsible for the next phase of language instruction, which consists of two tiers: Principles of Effective Writing I (ENG 099) and Principles of Effective Writing II (ENG 102).[4] In order to receive credit for ENG099, most students have to pass an in-class writing examination; in order to receive credit for ENG102, they have to submit two short documented research papers. According to the Director of the English Composition Program, at the time of the study between 25% to 35% of ENG099 students had to repeat ENG099 and between 15% to 20% ENG102 (Wyckoff, personal communication, November 20, 1996).

Unlike some schools within CUNY, at Lehman there is no "speaking" requirement, since in the one required course in speech, comprehensibility is usually not deemed necessary in order to pass. Thus, in this academic environment, oral communication skills are not really a prerequisite for advancement. This configuration of factors further underscores the importance formally ascribed by the college to cognitive-academic language proficiency as opposed to basic interpersonal communication skills.

Participants: Twelve Spanish-speaking informants were chosen from a pool of students in the English Composition Program who had passed through the English as a Second Language Program.[5] Six had to repeat at least one course in one of these programs in the academic use of English and six were exceptionally successful academically in that they did not have to repeat any of these courses. Informants were typically Dominican women who had had little formal English language instruction in their country of origin, had come to the United States eight years earlier, had begun in the intermediate level of the program, and had formally studied English for five of these eight years. This profile matched that of the typical ESL student at the college.

Instrument: Four sets of passages, excerpted from essays, were presented to each of the informants. They were told how many errors to expect in each passage and asked to number them and make the necessary corrections, without making substantial revisions. This is a type of error analysis which is often used in the English language and composition sequence. All sentences in each paragraph had been written by Spanish-speaking students: the first three text blocks had been taken from essays written by three students in an ENG099 class; the last was an edited composite of four essays written by four students enrolled in the ESL Program. Although in order to facilitate editing the order of the sentences was sometimes changed from the original order and some errors were eliminated, all the errors were genuine.

Although the labelling of error may seem reductive, Odlin and Natalicio (1982) claim that prototype theory (Rosch, 1975) can be extended to linguistic categories. Bialystok (1979) and Green and Hecht (1994) both categorized error. Thirty of the 37 errors were morphological and represented errors in the (1) use of the past participle in passive voice and adjectives; (2) subject-verb agreement; (3) other errors in the choice of formation of verb tense, aspect, or mood; or (4) other morphological error where form was not marked for function.

Examples #1-4 of morphological error

(1) *error in the use of the past participle in passive voice and adjectives*
It is good when they are protect[12] by the law . . .

(2) *s-v agreement error*
The law of the United States protect[6] children . . . .

(3) *other errors in choice or formation of verb tense, aspect, or mood*
Maya's brother was the only person there when she need it[18].

(4) *other morphological error*
We have to teach children to difference[2] between good and bad things.

Example #5 of non-morphological error
There are a lot of people divorcing, and we can say _[25]is because they didn't spend enough time getting to know each other.

There is no uniform curriculum at Lehman, but it is reasonable to expect that these areas were covered in the 10 semesters of English language instruction that the informants received on average.

Data Collection: Data were elicited through the editing instrument and a two-step think-aloud protocol. After a brief training period, in which informants listened to a short audio tape of a Spanish-speaking student thinking out loud while she worked on a series of math exercises, informants were asked to verbalize the processes that they employed while they responded to the task, which was introduced by a bilingual peer, who remained present during the training and first phase of self-observation. Immediately following the simultaneous introspection, informants were also asked to comment on the process. Although simultaneous introspection is primary, it may at times be incomplete, partially due to processing capacity. [6] Thus, retrospective introspection in order to clarify incomplete or ambiguous data collected during the self-observation simultaneous with editing can improve the reliability of analysis (Haastrup, 1987).

Data Analysis. This protocol produced two types of data: performance data in the form of actual corrections to the passage and process data in the form of the informants' simultaneous and retrospective descriptions of the mental processes. All oral data were transcribed and examined for task-based use of explicit knowledge, during or after the initial confrontation with the text.

In response to the task, there was the obvious "right" (corrections) and "wrong" (oversights).

Example#6 (correction)
re: error # 1
Children should be raise[1] in a healthy environment.

Edit☛: Children should be ☛ raised in a healthy environment.

Example#7(oversight)
re: error # 2
We have to teach children to difference[2] between good and bad things.

Edit: None

There were also edits when a form was substituted which was not strictly necessary (stylistic); when an incorrect form was detected but not satisfactorily corrected (ineffective) and when an incorrect form was substituted for something which was correct (negative).

Examples#8,9(stylistic edit)
Original text: There are a lot of people divorcing . . .
Edit☛: There are a lot of people ☛divorced . . .

Original text: Some people say people should . . .
Edit☛: Some people say they should . . .

Example#10 (ineffective edit)
Original text: If Maya's parents would had been[16] there for her .

Edit☛: If Maya's parents would have been there for her . .

Example#11(negative edit)
Original text: . . . many children become victim[7] of abuse.

Edit☛ : . . . many children become victims of ☛abuses.

An individual scoring rubric was designed to reflect these five categories (See Appendix A). Edits as well as oversights were included by noting the word or phrase at issue as well as, wherever possible, the number designating it in the annotated instrument (See Appendix B).

Performance data were analyzed in conjunction with oral process data. Through the taping and transcription of the think-aloud protocol, the process of correction was examined, including how long it took informants to correct different errors, which errors were corrected with the aid of explicit knowledge, what this knowledge was and whether it first appeared during editing or retrospectively. Categories and definition of processes were determined after an inductive analysis of the data. Only those edits occurring during simultaneous introspection were noted on the rubric. For each informant, the number of edits and oversights was indicated at the top of the scoring rubric.

Any reference to a metalinguistic term, whether or not in rule form, was coded as explicit knowledge. Given this definition, there are some errors, like the one error in spelling (error #28), where it can be assumed that rarely would any explicit knowledge other than from a dictionary be consulted.[7] Since informants were not aware that their use of explicit knowledge would be examined, and since part of the protocol involved them talking to themselves, verbalization of rules was usually elliptical and rarely elaborate

This explication either occured simultaneously with correction (See Example #12) or afterwards in the retrospective probe (See Examples #13 & #14).

Example #12 (Informant #4)
re: error #1
Children should be raise[1] in a healthy environment.

I: *Children should be raise, has to be, the, the past, parti, past participle, in a healthy environment.*

Example #13 (Informant #3)
re: error #6
The law of the United States protect[6] children. . .

R: Okay, now, let's go onto B, uhm, so Line 1.

I: Line 1, I put "s" because was talking about the law not the state.

Example #14 (Informant #8)
re: error #1
Children should be raise[1] in a healthy environment.

R: Okay, so number one.

I: "raised", because "should be" is a past perfect, so I have to add e-d.

The explicit knowledge cited in Example #14 is, in fact, anomalous. Green and Hecht (1992) looked at each student rule to determine whether it was correct or incorrect. Because of time constraints and the complexity of the data, this feature will not be examined here.[8]

The rubric also noted how long in term of seconds each correction took from the time the informant appeared to isolate the problem to the time she resolved it. The initial reading out loud of a phrase was not considered, but subsequent repetition was, at least as long as it appeared to be part of the deliberation process. Resolution was not always considered to immediately follow enunciation of an answer. Sometimes, the informant paused only at the end of a newly constructed sentence rather than after the phrase which had been corrected. The points at which error correction was considered to have begun and where it was considered to have ended were carefully noted in the transcript along with the amount of time each error correction took.

Limitations: While the study seeks through self-observation to access processes to which the learner may not ordinarily attend, learners may not be aware of all their mental processes (Afflerbach & Johnson, 1984). Although the design of this study supports the verbalization of propositional statements of explicit linguistic knowledge, much knowledge

may have gone unsaid and what was said was often elliptical. Carroll, Bever & Pollack (1981) have observed that metalinguistic performance can be unstable and manipulated. The use of genuine student error in the editing task can be assumed to be more authentic and thus valid, but it also may have compromised attempts to compare and analyze data in a quantitative manner.[9] Kellerman (1985) has observed that "error detection is itself a confounded variable, dependent on linguistic, perceptual, and experimental factors"(p. 99), and in this type of research, learners may veer off in all directions, raising questions of validity and complicating data analysis.

3. Results

There were 314 edits in the set of passages corrected by the 12 informants. Fifty-seven percent (179) of all edits resulted in correction. Sixteen percent (49) resulted in unnecessary but acceptable changes; 14% (44) in ineffective attempts to correct error; and 13% (42) in additional errors (negative) (See Figure 1).

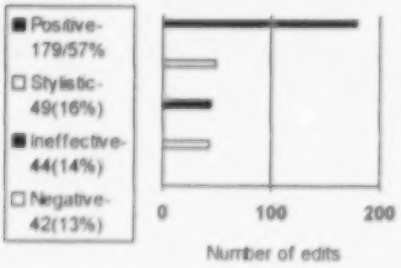

Figure 1. Total number of edits categorized by outcome.

The average number of items corrected in the 37-item task was 15 (40%). Between the informant who ranked fifth and the one who ranked sixth, there was a gap of 4 items

corrected, the largest gap between any two informants in relative ranking. The split would again be between the fifth and sixth informants, if one were to group informants by those who had corrected close to or more than half of the errors and those who had corrected well less than half. For these two reasons, the informants who ranked 1, 2, 3, 4, and 5 were considered to be relatively "high achievers" and the informants who ranked 6, 7, 8, 9, 10, 11 and 12 were considered to be relatively "low achievers " (See Figure 2). The average number of corrections per student in the group of higher achievement was 21, ranging from 18 to 24 corrections, while the average number of corrections in the group of lower achievement was 10 ranging from 6 to 14 corrections each.

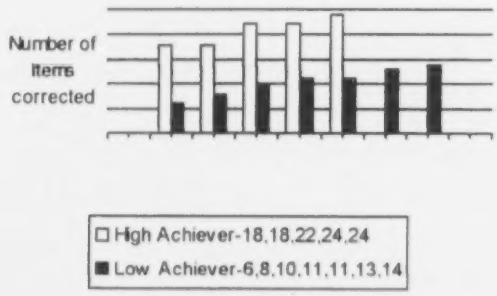

Figure 2. High-achiever and low-achiever grouping on the basis of task performance.

Ranking on the task corresponded largely but not completely with academic success: the student who ranked third had repeated at least one course while the students who ranked sixth and twelfth had not repeated any ESL or English course that was required by the college.

Explicit Knowledge: Forty-two percent (133) of edits were accompanied by explicit knowledge verbalized either simultaneously with edits or afterward when the informant discussed edits with the researcher. Of these explicated edits, 68% (90) resulted in

correction; 18% (24) did not result in correction; and 14% (19) resulted in additional errors (See Figure 3).

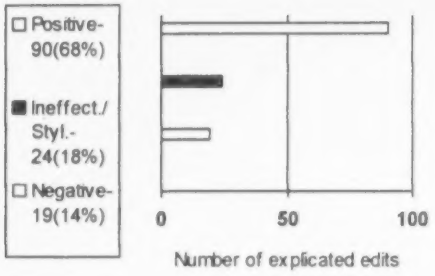

Figure 3. Total number of explicated edits by category.

Although 49% of corrections were made with no explication (90/181), explicated edits were 19% more likely to result in correction, with a correction rate of 68% (90/133) (See Figure 4).

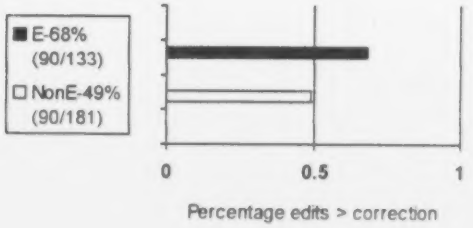

Figure 4. Percentage of explicated (E) and non-explicated edits(NonE)resulting in correction.

Informants in the high achiever group used explicit knowledge in 50% of edits (76/154) while informants in the lower achiever group used explicit knowledge in only 36% (57/160) of edits (See Figure 5).

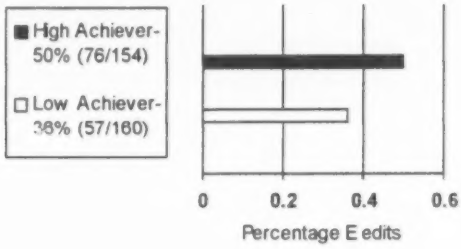

Figure 5. Percentage of explicated edits in each of groups differentiated by task achievement

Given the distinction between "high achiever" and "low achiever", predictably, this difference was more pronounced when the data were analyzed in relation to correction. Low achievers used explicit knowledge not only less often but also less effectively. High achievers' explicated edits resulted in correction 76% of the time (58/76) whereas the lower achievers' explicated edits resulted in correction 56% of the time (32/57) (See Figure 6).

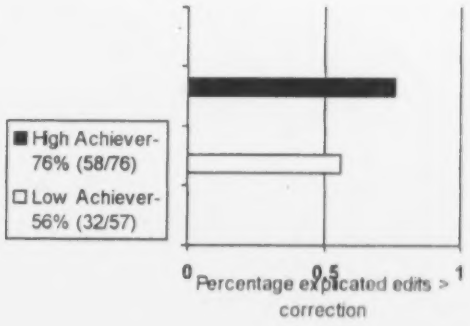

Figure 6. Percentage of explicited edits resulting in correction in each of groups differentiated by task achievement

Notably, however, the rate of correction for lower achieving students (56%) was still higher than the rate of correction with no explicit knowledge (49%).

When the potentially damaging observer effect is reduced by discounting edits only explicated retrospectively to the researcher, the results are more striking. Eighty percent (44/55) of edits in which students' explication was simultaneous resulted in correction compared to a rate of 59% (46/78) for edits which were explicated only retrospectively (See Figure 7).

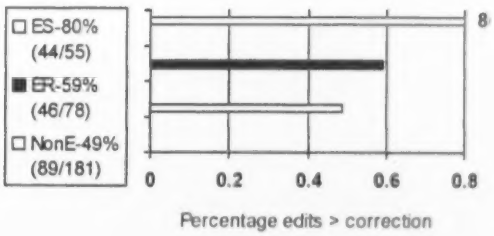

Figure 7. Percentage of simultaneously explicated (ES), retrospectively explicated (ER) and non-explicated (NonE) edits resulting in correction

Twenty-six percent (40/155) of all edits in the high achiever group were simultaneously explicated while this was true for only 9% (15/160) of all edits in the low achiever group (See Figure 8).

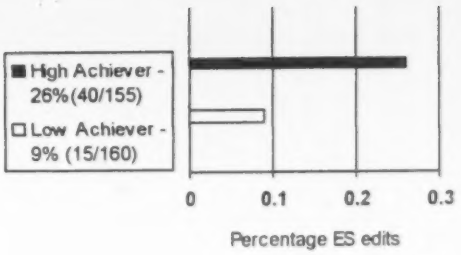

Figure 8. Percentage of simultaneously explicated edits in groups differentiated by task achievement

Students who had performed better on the task were four times more likely to use pedagogic rules in their initial crack at editing, with an average of eight simultaneously explicated edits per student in the high achiever group and two simultaneously explicated edits in the low achiever group. Furthermore, in the simultaneous data, there was a correlation between explication and success in Academic ESL/ENG not found when explicated edits were looked at as a whole. The group of six students who had been relatively more successful had 33 simultaneously explicated edits whereas the relatively less successful group of six had only 22. Like both groups differentiated by task achievement, both groups differentiated by academic success used the explicit knowledge that surfaced first during the think-aloud portion of the protocol with exceptional effectiveness with a correction rate of 85% (28/33) for more successful students and a correction rate of 73% (16/22) for less successful students.

Easy vs. Hard Rules. Explicit knowledge was associated with 56% of correction of morphological error (96/173), and only 22% of correction of other types of error (8/34). This sharper difference in the rate of explication indicates that explicit knowledge may be less useful outside the realm of morphology or word form (See Figure 9).

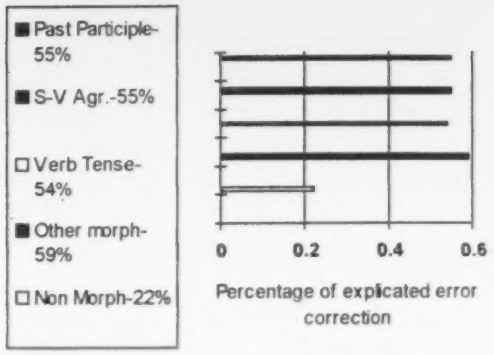

Figure 9. Percentage of explicated error correction for different types of error.

Time. Students took, on average, 20 seconds to correct errors which they were simultaneously explicating, compared to 14 seconds, on average, for those which they did not, whether or not they were explicated eventually in the retrospective self-observation. Thus, given the fact that explication itself takes time, the explicit knowledge was used fairly quickly (See Figure 10).

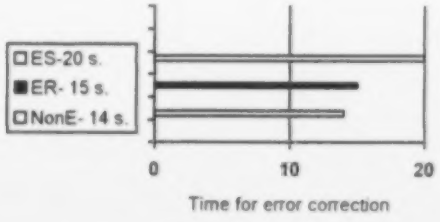

Figure 10. Avg. time for error correction in relation with simultaneous explication (ES), retrospective explication(ER) and no explication(NonE).

One unexpected finding was a sharp difference in terms of time when data were examined on the basis of task performance (See Table 1). High achievers took seventy percent *more* time with edits that they explicated subsequently than they did with edits

that were never explicated. The reverse was true, however, for low achievers, who spent thirty percent *less* time with edits which were subsequently explicated than with edits that were never explicated. The analysis shows a similar pattern for students differentiated on the basis of academic success

Table 1

Average time for error correction in relation to simultaneous explication, retrospective explication, and no explication based on task achievement and acacdemic success

Time for correction	High Achievers	Low Achievers	More Successful	Less Successful
Simultaneously Explicated	17 seconds	NA	20 seconds	19 seconds
Retrospectively Explicated	17 seconds	12 seconds	17 seconds	12 seconds
No Explication	10 seconds	17 seconds	11 seconds	17 seconds

There are at least two explanations for this phenomenon. Possibly, the low-achieving and less successful students were explicating an edit which they had initially made based on relatively faster implicit linguistic knowledge. However, edits which were never explicated took an average of 17 seconds for those students. If this were the case, why would retrospectively explicated edits take *less* time than edits which were never explicated?

The time difference between edits which were explicated, albeit retrospectively, and those which never were indicates that retrospective explication did reflect processes that were concurrent with editing; the difference between stronger and weaker students suggests a difference in the level of analysis of explicit knowledge. Bialystok argues that the extent to which this knowledge has been analyzed accounts for differences in the rate of achievement among individuals. The time difference in this study may indicate that explicit knowledge has not been analyzed by the lower-achieving and less successful students. Seliger (1984) also incorporates analysis into his differentiation between refractive strategy and reflective strategy. Refractive strategies involve mere reflexes and reflective strategies involve either hypothesis testing or meaningful learning. He gives as an example of a refractive strategy rote memorization. Explication as reflex may be more efficient in terms of time but not in terms of accuracy.

4. Conclusion

Explicit knowlege was found to be directly related to recognition and correction of error and to success in requisite English courses. Explicit knowledge was most effective in the treatment of morphological error. Although this explicit knowledge appeared to be fairly automatic, students who were more successful on the task and at school spent a relatively longer time on corrections which they eventually explicated than did less successful students, suggesting that analysis is a crucial element of the successful use of such knowledge. Although this study does not pretend to resolve the interface debate[10], the findings suggests that the Input Hypothesis may be somewhat simplistic. Psycholinguistic approaches have contended that explicit rules can become part of or evolve from the learner's implicit system.

Bialystok believes that analysis and control are essential to the development of the second language, particularly to literacy skills. She speaks of "knowledge based" strategies relating to "the structure of the L2 and linguistic information" and "control based strategies" relating to the execution of language under particular circumstances (Bialystok & Sharwood Smith, 1985). Analysis is described as the process by which implicit knowledge becomes explicit in three increasingly sophisticated stages of mental representations of language (conceptual, formal and symbolic) in which the learner moves from a mere recognition of syntagmatic relations to paradigmatic relations and eventually on to a recognition of a system of categories for referring to meanings (e.g., noun, language, number)(1994).[11] Control would refer to the process of selective attention. Bialystok and Sharwood Smith (1985) have used the library as a metaphor for analysis and control. The number of books corresponds with quantitative knowledge, the system in which they are arranged with qualitative knowledge or analysis, and retrieval procedures and their efficacy with control. "The user has to know which volumes (i.e. linguistic units and structures) will contribute to that goal, where they may be found, and how to get them out efficiently (i.e., with speed and without undue effort)" (p. 105). Regardless of whether or not this knowledge or these rules are correct, according to the theory, the analysis itself represents an advance from merely using "chunked" language to having "flexible access," enabling the learner to apply it in a wider range of situations, from those which demand basic interpersonal communication skills to those which require cognitive academic language proficiency (Bialystok & Sharwood Smith, 1985; Bialystok, 1994).

Information processing and skill-building theories are based on the work of cognitive psychologists. Anderson (1980) posits three stages of skill acquisition: "(1) a cognitive stage, in which a description of the procedure is learned; (2) an associative stage, in which a method for performing the skill is worked out; (3) an autonomous stage, in which the skill

becomes more and more rapid and automatic" (p. 256). The declarative knowledge characteristic of the first two stages becomes procedural knowledge by the third through the process of "compilation," which begins with accretion or "composition", of knowledge (a process of streamlining), followed by "proceduralization," in which knowledge is recombined to produce routine procedures which are not necessarily retraceable to the declarative information from which they originated. Chamot and O'Malley (1994) believe strategies follow these same three stages. They begin with controlled processes which eventually become automatic, at which point they may or may not be explicit, depending on the level of learners' metacognitive awareness.

The results of this study can be accomodated by either cognitive view of language learning and challenge the contention that it "has been proven" that "grammar" has no place in the L2 writing classroom as did Yorio (1994), former director of Lehman's ESL Program, with the following questions:

> . . . How do 'quantity and 'quality' of input relate to eventual proficiency? What is the relationship between fluency and accuracy? Are there any drawbacks or adverse effects in pure *acquisition*-oriented L2 situation? How do acquisition strategies affect different language skills (speaking, listening, reading, and writing)? Is the importance of *acquisition* over *learning* justifiable in every L2 situation, regardless of the ultimate achievement goals? (Yorio, p. 131, 1994)

He observed that CUNY "has thousands of students . . . who can communicate but cannot graduate. . . The fact that many of these learners are seniors with over 100 credits and have in consequence, been exposed to much academic English, indicates that 'academic level language input' will not be sufficient" (1994, p. 134). For students failure to achieve requisite CALP skills, he blamed the language fossilization which can result from an extended period of fluency without accuracy and without negative feedback (Higgs & Clifford, 1982; Vigil & Oller, 1976). It has been observed that "the natural approach" may not be suited to the classroom

which provides a relatively limited amount of time for language learning and an environment that is decidely unnatural (Higgs, 1991; Sharwood Smith, 1981).

Our ESL writing students certainly believe that explicit instruction and error correction is beneficial (Leki, 1991; Manley, 1997; Saito; 1994; Yorio, 1989). Ellis (1994) also criticizes the two extremes that have dominated the debate over whether there is an interface between explicit and implicit knowledge. He presents a weak interface position" in which explicit knowledge helps the learner to notice and compare[12] features in both language input and output and has the potential to become implicit through practice if the rule is not developmental, such as the rule governing the use of the copula, or if it is developmental, when the learner is psycholinguistically ready.[13]

In this study, 49% of error was corrected through implicit knowledge. There is no doubt, regardless of one's position on the interface debate, that students do not need to be able to explain why something is right or wrong to know that it is. The findings simply suggest a reconsideration of the no grammar explication, "non-interventionist" theoretical position and the adoption of a more balanced approach. Before he became as zealous in his push for *only* comprehensible input, Krashen himself acknowledged that (1) formal instruction is valuable for adults in that it provides a context in which rules can be isolated and error detected and corrected (Krashen & Seliger, 1975) and (2) the monitor is more accessible to adults, for writing, and for grammatical morphemes (1977b).

Tannen (1998) criticizes the agonistic spirit of the academy which have led to the infamous "pendulum swings" which seem to have characterized education and advocates "methods of investigation that focus more on integrating ideas and exploring relations between them than on opposing ideas and fighting over them" (p. 258). A report recently released by the National Research Council criticizes the dichotomy between methods which promote top down and bottom up processing and urges a balance between the two (Snow, Burns & Griffin, 1998).

[1] Implicit knowledge can consist either of implicit rules or of language chunks (Ellis, 1986). "It is in this sense that a language learner may claim that a sentence 'sounds' or 'feels' right, although no direct evidence for the correctness of the sentence may be cited" (Bialystok, 1978, p.71). Explicit knowledge, on the other hand, can be more or less readily articulated or elaborated (Sharwood Smith, 1981).

[2] Robinson (1996) also provides a thorough discussion of pedagogic rule complexity and reminds us that distinctions between easy and hard correspond more with the potential language has for description than the way it is represented biologically in the mind (p. 31).

[3] Bialystok defines strategy thus, "one might argue that each solution to a problem involves a strategy . . . In this broad sense, strategy is coterminous with problem solving" (1990, pp. 7-8).

[4] If students speak English as a second language and have also been judged during the reading of the Writing Assessment Test to have made errors characteristic of students of English as a second language (which is the case with most students taking the test within the ESL Program), they are advised to register for a sheltered "ESL section" of 099. At the end of the semester, the 099 teacher must also indicate for all passing students whether or not he/she recommends that they continue the sequence in an sheltered "ESL section" of 102. It is questionable, however, if the decision of whether or not to place a student in either track is significant, based as it is on a judgement based on no written guidelines. Furthermore, as students are not required to follow these recommendations, some students recommended for placement into a sheltered "ESL section" often register for "mainstream" sections, while some students who speak English as their first language register for these sheltered sections.

[5] Students who had been taught by the researcher were disqualified.

[6] Afflerbach and Johnston (1984) use the metaphor of a "cognitive workbench" (Britton, Glynn & Smith, 1984) to explain potential limits on short-term or working memory; only so much can be "worked on" at one time and reporting processes may "crowd out" some of this processing.

[7] No ESL textbooks reviewed by this researcher explicated spelling rules such as that which may govern "responsibility," nor it is likely that a teacher would explicate such a rule.

[8] See O'Riordan (1998) for a discussion of the validity of the explicit knowledge elicited in this study.

[9] In a similar study, Green and Hecht (1992) see whether or not native speakers can correct target forms as a criterion of validity; however, their reasoning is not clear.
This researcher does not assume that native speakers are able to correct all errors and did not expect any of the informants to do so either. Rather, the task is seen as a device to elicit data on the process of language acquisition.

[10] See Barasch and James (1994) and Ellis (1994) for further discussion.

[11] Karmiloff-Smith (1986) offers another theory of how language is restructured in three stages, which in some ways corresponds to that of Bialystok, in that progress in language learning is also equated with organization of knowledge in terms of simplification, unification and control. The first stage is environmental, the second mental, and only in the third, by comfortably incorporating feedback, is the learner able to balance both.

[12] Schmidt (1990) argues that the noticing function of explicit linguistic knowledge is relatively important for adults who may otherwise be less likely to notice linguistic features. Obviously, the comparing function would also be relatively important for adults who have a more developed and more explicit knowledge of another language.

[13] See Dulay and Burt (1974) and Pienemann (1988) for more on developmental stages.

References

Afflerbach, P., & Johnston, P. (1984). Research methodology on the use of verbal reports in reading research. *Journal of Reading Behavior, 16*, 307-321.

Anderson, J. R. (1980). *Cognitive psychology and its implications*. New York: Freeman.

Barasch, R. & James, C. V. (Eds). (1994). *Beyond the Monitor Model*. Boston: Heinle & Heinle.

Bialystok, E. (1978). A theoretical model of second language learning. *Language Learning, 28*, 69-83.

Bialystok, E. (1979). Explicit and implicit judgments of L2 grammaticality. *Language Learning, 29*, 81-103.

Bialystok, E. (1988). Psycholinguistic dimensions of second language proficiency. In W. Rutherford & M. Sharwood Smith (Eds.), *Grammar and second language teaching* (pp. 31-50). New York: Newbury House.

Bialystok, E. (1994). Analysis and control in the development of second language proficiency. *Studies in Second Language Acquisition, 16*, 157-168.

Bialystok, E. & Sharwood Smith, M. (1985). Interlanguage is not a state of mind. *Applied Linguistics, 6*, 101-117.

Britton, C., Glynn, S. & Smith, J. (1984). Cognitive demands of processing expository text: a cognitive workbench model. In B. Britton and J. Black (Eds.), *Understanding Expository Text*. Hillsdale, NJ: Erlbaum Associates.

Carrol, J.M., Bever, T.G., & Pollack, C.R. (1981). The non-uniqueness of linguistic intuitions. *Language, 57*, 368-352.

Carroll, S. & Swain, M. (1993). Explicit and implicit negative feedback. *Studies in Second Language Acquisition, 15*, 357-386.

Celce-Murcia, M. (1991). Grammar pedagogy in second and foreign language teaching. *TESOL Quarterly, 25*, 459-480.

Chamot, A. U. & O'Malley, J. M. (1994). Language learner and learning strategies. In N. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 371-392). San Diego: Academic Press.

Doughty, C. & Williams, J. (Eds.) (1998). *Focus on form in classroom second language acquisition*. New York: Cambridge University Press.

DeGraaff, R. (1997). The Experanto experiment: Effects of explicit instruction on second language acquisition *Studies in Second Language Acquisition, 19*, 249-276.

Dulay, H. & Burt, M. (1976). Creative construction in second language learning and teaching. *Language Learning, 4*, 65-79.

Ellis, N. (Eds). (1994). *Implicit and explicit learning of languages*. San Diego: Academic Press.

Ellis, N. (1994). Implicit and explicit language learning – an overview. In N. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 1-31). San Diego: Academic Press.

Ellis, R. (1986). *Understanding second language acquisition*. Oxford: Oxford University Press.

Ellis, R. (1990). *Instructed second language acquisition*. Cambridge: Basil Blackwell.

Faerch, C. (1986). Rules of thumb and other teacher-formulated rules in the foreign language classroom. In G. Kasper (Ed.), *Learning, teaching and communication in the foreign language classroom*, pp. 65-79. Aarhus: Aarhus University Press.

Ferris, D. R. (1997). The influence of teacher commentary on student revision. *TESOL Quarterly, 31*, 315-339.

Green, P., & Hecht, K. (1992). Implicit and explicit grammar: An empirical study. *Applied Linguistics, 13*, 168-84.

Haastrup, K. (1987). Using thinking aloud and retrospection to uncover learners' lexical inferencing procedures. In C. Faerch & G. Kasper (Eds.), *Introspection in second language research* (pp. 197-212). Philadelphia, PA: Multilingual Matters.

Hayes, M. F. & Daiker, D. (1984). Using protocol analysis in evaluating responses to student writing. *Freshman English News, 13*, 1-5.

Higgs, T. V. (1991). Research on the role of grammar and accuracy in classroom ' based foreign language acquisition. In B. Field (Ed.), *Foreign language acquisition research and the classroom* (pp. 46-53). Lexington, MA: D. C. Heath and Company.

Higgs, T.V. & Clifford, R. (1982). The push toward communication. In T. Higgs (Ed.), *Curriculum, competence and the foreign Language Teacher* (pp. 57-79). Skokie, IL: National Textbook Company.

Hulstijn, J. (1990). A comparison between the information-processing and the analysis/control approaches to language learning. *Applied Linguistics, 11*, 30-45.

Hulstijn, J. (1995). Not all grammar rules are equal: Giving grammar instruction its proper place in foreign language teaching. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning* (Technical Report #9) (pp. 359-386). Honolulu, Hawaii: University of Hawaii, Second Language Teaching and Curriculum Center.

Hulstijn, J. & DeGraaff, R. (1994). Under what conditions does explicit knowledge of a second language facilitate the acquisition of implicit knowledge? A research proposal. *AILA Review, 11*, 97-112.

Karmiloff-Smith, A. (1986). Stage/structure versus phase/process in modelling linguistic and cognitive development. In J. Levin (Ed.), *Stage and structure: Reopening the debate* (pp. 164- 290). Norwood: Ablex.

Krashen, S. (1977a). The monitor model for adult second language performance. In M. Burt, H. Dulay & Finnochario (Eds.), *Viewpoints on English as a second language* (pp. 152-161). New York: Regents.

Krashen, S. (1977b). Individual variation in the use of the monitor. In Dingwall, W. O. (Ed.), *A Survey of Linguistic Science.*

Krashen, S. (1982). *Principles and practice in second language acquisition.* New York: Pergamon.

Krashen, S. (1994). The input hypothesis and its rivals. In N. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 45-77). San Diego:Academic Press.

Krashen, S & Seliger, H. (1975). The essential contributions of formal instruction in adult second language learning. *TESOL Quarterly, 9*, 173-183.

Krashen, S. & Terrell, T. (1983). *The natural approach: Language acquisition in the classroom.* Oxford: Pergamon Press.

Leki, I. (1991). The preferences of ESL students for error correction in college-level writing classes. *Foreign Language Annals, 24*, 3, 203-218.

Manley, J. H. (1997). Grammar instruction for writing skills: Do students perceive grammar as useful? *Foreign Language Annals, 30*, 73-83.

McLaughlin, B. (1978). The Monitor model: Some methodological considerations. *Language Learning, 23*, 309-332.

Odlin, T. & Natalicio, D. (1982). Some characteristics of word classification in a second language. *Modern Language Journal, 66*, 34-38.

Pienemann, M. (1988). Determining the influence of instruction on L2 speech processing. *AILA Review, 5*, 40-72.

O'Riordan, M. (1998). *Strategic Use of Transfer and Explicit Linguistic Knowledge: A Study of Twelve Spanish-Speaking College Students.* Unpublished doctoral dissertation, Teachers College, Columbia University, New York.

Perkins, K. (1980). Using objective methods of attained writing proficiency to discriminate among holistic evaluations. *TESOL Quarterly, 14,* 61-69.

Pica, T. (1985). The selective impact of classroom instruction on second language acquisition. *Applied Linguistics, 6,* 214-222.

Prior, P. (1991). Contextualizing writing and response in a graduate seminar. *Written Communication. 8, 267-310.*

Prior, P. (1995). Tracing authoritative and internally persuasive discourses: A case study of response, revision and disciplinary enculturation. *Research in the Teaching of English. 29,* 288-325.

Rafoth, B.A. & Rubin, D.L. (1984). The impact of content and mechanics on judgments of writing quality. *Written Communication. 1,* 446-458.

Reid, J.M. (1998a). "Eye" learners and "Ear" learners: Identifying the language needs of international students and US resident writers. In Byrd, P. & J. M. Reid. (Eds), *Grammar in the Composition Classroom* (pp. 3-17). Boston: Heinle & Heinle.

Reid, J.M. (1998b). Learning styles and grammar teaching in the composition classroom. In Byrd, P. & J. M. Reid (Eds), *Grammar in the Composition Classroom.* Boston: Heinle & Heinle.

Robinson, P. (1996). *Consciousness, rules and instructed second language acquisition.* New York: Peter Lang.

Robinson, P. (1997). Individual differences and fundamental similarity of implicit and explicit adult second language learning. *Language Learning. 47.* 45-99.

Rosch, E. (1975). Cognitive representations of semantic categories. *Journal of Experimental Psychology: General. 104.* 192-233.

Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics, 2.* 17-46.

Saito, H. (1994). Teachers' practices and students' preferences for feedback on second language writing: A case study of adult ESL learners. *TESL Canada Journal/Revue TESL du Canada, 11,* 46-70.

Seliger, H. W. (1979). On the nature and function of language rules in language teaching. *TESOL Quarterly, 13,* 359- 369.

Seliger, H.W. (1984). Processing universals in second language acquisition. In F. Eckman (Ed.), *Universals in second language acquisition* (pp. 36-47). Rowley, MA: Newbury House.

Sharwood Smith, M. (1981). Consciousness raising and the second language learner. *Applied Linguistics, 2,* 159-168.

Snow, C.E., Burns, M.S. & Griffin, P. (1998) (Eds.). *Preventing reading difficulties in young children.* Washington, D.C. : National Academy Press.

Sweedler-Brown, C.O. (1993). ESL essay evaluation: The influence of sentence-level and rhetorical features. *Journal of Second Language Writing, 2, 1,* 3-17.

Tannen, D. (1998). *The argument culture: Moving from debate to dialogue.* New York: Random House.

Tarone, E. (1985). Variability in interlanguage use: A study of style shifting in morphology and syntax. *Language Learning, 35,* 373-403.

Truscott, J. (1996). The case agains grammar correction in L2 writing classes. *Language Learning, 46,* 327 - 369.

Vann, R.J., Meyer, D.E. & Lorenz, F.O. (1984). Error gravity: A study of faculty opinion of ESL errors. *TESOL Quarterly, 18,* 427-440.

Vigil, N. & Oller, J. (1976). Rule fossilization: A tentative model. *Language Learning, 26,* 281-295.

Wall, S. V. & Hull, G. A. (1989). The semantics of error: What do teachers know? In C. Anson (Ed.), *Writing and Response* (pp. 261-292). Urbana, IL: NCTE.

White, L. (1991). Adverb placement in second language acquisition: Some effects of positive and negative evidence in the classroom. *Second Language Research, 7,* 133-161.

Wyckoff, S. (1996, November 20). Personal communication.

Yorio, C. (1989). The other side of the looking glass. *Journal of Basic Writing, 8,* 32-45.

Yorio, C. (1994). The case for learning. In Barasch, R. & C. V. James (Eds.), *Beyond the Monitor Model* (pp. 125-135). Boston: Heinle & Heinle.

Informant #3 Roberto

EDITING: 22 positive interventions, 3 stylistic, 4 ineffective, 4 negative(33 total); 11 oversights
21 explicated (E); 10 during simultaneous self-observation (ES); 4 anomalous rules

Positive Interventions(15E, 8 ES)	Stylistic Interventions	Ineffective Interventions	Negative Interventions	Oversights
(1)**be raised-ES**- 10 s. (4)**their room organized**-E - 21 s. (5)**gave . . . could-ES**- 18 s.			clean> cleaned - E	(2) to difference (3)showed to them
(6) **protects-E** - 9 s. (7) **victims-E** - 22 s. (8)**beats-E** -8 s. (10)**weaker-ES** -20 s. (12)**are protected-E** - 7 s. (13)children are - 1 s.			abuse > abuses	(9) called (11)that is why
(14)**sadness-ES** -21 s. (18)needed it - 8 s. (20)**her brother-E** -7 s. (22)loved - 5 s.		(16)**would have been-E** (21)**die-E**	**were a lot of depression-E**	(15)have left (17)wouldn't have been no rape (19)silent (23)it existed (24)the true
(27)**spend-ES** 10 s. (28)responsibility -20 s. (29)the time comes - 9 s. (30) **the couple has-E** - 11 s. (33)**getting married and reach-ES** - 11 s. (34)**to worry - ES** -7 s. (35)easier - 16 s. (36)**get prepared-ES** - 7 s. (37)will decrease - 4 s.	divorcing >divorced people > they the people > people-ES	(25) ***deletion of* is - ES** (26)have a later married	**the people>people-ES**	(31)they married (32)people involve

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Task Based Use of Spanish - No
Reported Use of Spanish - Occasionally while thinking but not for morphology.
"Sometimes when, you know, you have a topic to write, and it's so hard that you cannot. I mean you don't you haven't read about that in English, you have to think in Spanish first, then set your mind, then get the, the, the vocabulary that you need"

Appendix A

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Appendix B

A. Children should be raise[1] in a healthy environment. We have to teach children to difference[2] between good and bad things. As a single parent, I raised my children in an educated way. I showed to[3] them how they have to keep their room organize[4] and clean. I give[5a] my children everything I can[5b].

B. The law of the United States protect[6] children because many children become victim[7] of abuse. When someone beat[8] up a child I called[9] that abuse. Children are weakness[10] than adults _[11] that is why they can not defend themselves and they have to look for help in case of an emergency. It is good when they are protect[12] by the law because as we all know children is[13] our future.

C. There was a lot of depression and sadly[14] in Maya's life. Her parents have left[15] her and her brother when they were small. If Maya's parents would had been[16] there for her, there wouldn't have been no[17] rape when she was small. Maya's brother was the only person there when she need it[18]. After many days of silent[19], Maya shared her secret with _[20] brother.

My own brother dead[21] nine years ago. I love[22] my brother because he was like my father. Our relationship was excellent because it[23] existed love, confidence and respect. I always told him the true[24].

D. There are a lot of people divorcing, and we can say _[25] is because they didn't spend enough time getting to know each other. Some people say people should married[26] later. Passion is what pushes us to do certain things such as get married without thinking of what marriage is all about. When people get married too soon they don't spent[27] enough time getting to know each other.

When you talk about marriage, you must mention certain things such as responsabilty[28]. Getting married is serious for many people and, as a result, they want to wait until the time come[29]. The couple have[30] to know each other before they married[31]. In a later marriage, the people involve[32] are more conscious of what they're doing. When people wait before getting married and reached[33] their goals there will be more happiness and nothing to worried[34] about. Everything will be more easy[35]. They get prepare[36] economically and emotionally. The number of divorces will decreased[37] as a result.

Morphological Error

(a) error in the use of the past participle in passive voice and adjectives (1, 4, 12, 32, 36)

(b) s-v agreement error (6, 8, 13, 29, 30)

(c) other errors in choice or formation of verb tense, aspect or mood (5, 9, 15, 16, 18, 22, 26, 27, 31, 33, 37)

(d) other (2, 7, 10, 14, 19, 21, 24, 34, 35)

Non-morphological error (3, 11, 17, 20, 23, 25, 28)